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SATURDAY, JULY 7, 1838.

ALLUVION.

Of all soils, the most fertile and productive, as well as the most inexhaustible, is alluvion; and of this, that is to be preferred which is brought down and deposited by rivers. As only the finest and richest parts of the decomposed mineral and vegetable formations will be floated to any considerable distance, it is clear that the deposits made by long streams will be richer than from short ones, and that their quality must in some measure partake of the country through which the rivers flow. Thus the alluvion of streams from regions of primitive formation, is more siliceous than that from countries of the secondary kind; this partaking more richly of vegetable and animal remains, and is in consequence more rich and productive.

Rivers vary greatly in the quantities of soil they deposit; some being nearly pure in their whole course, while others are heavily charged with matters brought down their currents for deposition. Of this, one of the most striking proofs to be met with in the world, may be found at the junction of the Missouri and the Upper Mississippi. In the time of flood, the heavy muddy current of the former is projected into the latter with such force, as to throw its waters, eddying and boiling, more than half way across the channel, and for miles the line of demarkation between the waters of these mighty rivers is perfectly distinct.—Few rivers in the world deposit as much alluvion as the Missouri; of this the whole of the Mississippi valley below the mouth of that river bears amply testimony.

The rivers most conspicuous for the immense deposits of alluvion they have created, are the Ganges, Nile and Mississippi; and next to these, the South American rivers of Oronoko, Amazon and La Plata. It is indeed the opinion of some late travelers in South America, that the whole of the immense plains that stretch from the Oronoko to the south of the Laplata, and from the ocean to the foot of the Andes, with few exceptions, is wholly alluvial, and has in the process of centuries, or by some convulsion of nature, been gradually lifted from the waters; and the fossil remains which have been found in all the regions in question that have been explored, would seem to give some plausibility to the opinion. The Delta of the Nile, on which the greater part of the deposit brought down by that river has been spread, with the exception of what was left by the overflowing of the banks from the cataracts to Cairo, forms the place where this formation of soil and its effects have been the longest noted. In the upper part of the valley of the Nile, in Egypt, the deposit in 3000 years has been from 16 to 20 feet. The ruins of Thebes, Memphis, and the other once splendid cities of that country, so early famed in sacred and profane history, so early rescued from oblivion by Moses and Herodotus, prove this fact most incontestibly. The Delta of the Nile is now constantly encroaching on the Mediterranean, while the drifting sands of the desert are narrowing its valley and obstructing its channel above. The Delta of the Ganges is an immense jungle or swamp, the source of annual pestilence, and the haunt of tigers; and all efforts to effect settlements to any extent below Calcutta have failed.

The alluvion at the mouth of the Po, in Italy, has, since the Christian era, extended several miles into the Adriatic; and the process, owing to the embanking of the river to a great extent, to prevent its overflowing the rich lands on either side, has within the last century rapidly increased. Similar results have taken place at the mouths of other rivers, such as the Rhine and the Scheldt in Holland, the Elbe in Germany, and the Vistula in Prussia. Holland, a few centuries ago, was nearly all drowned or overflowed land. Embankments, constructed and kept in repair at an enormous expense, have rescued this alluvion from the dominion of the waves, and rendered it the most fertile of any section of the globe.

More or less land of this kind may be found at the mouths of all the rivers that flow into the Atlantic, from the Hudson to the Sabine. The extensive range of level country that borders so deeply the southern states; constitutes nearly the whole of Florida; and extends along the Gulf to the bay of Mobile; may be considered as mostly alluvial; but instead of being produced by river deposit, it has evidently been thrown up by the sea and the influence of the gulf stream. This is proved by the character of the soil, and the nature of the fossil remains found in it.

But it is at the mouth of the Mississippi, that the greatest quantity of strictly alluvial deposit is to be found. There is every reason for believing that the Gulf of Mexico once extended far above the mouth of the Red River, and that the whole of the state of Louisiania has been deposited in its basin by the Mississippi; and the annual deposition is going on with equal or greater rapidity than ever. We say, greater rapidity, for it is a well known fact, that when a country is cleared of its forests, much larger quantities of alluvion are carried off for deposition than before; and this removal of the western forests is constantly progressing. It also appears that the formation of land at the mouths of this great river, is more rapid than formerly; though this, we think, should in part be attributed to the embankments or levee, which, for about 150 miles above and below New Orleans, confine the floods of the river to its channel, except at those points where deep natural channels for carrying off the surplus water exist. It is a curious fact, that for months the water of the Mississippi is some ten or twelve feet higher than the adjoining country; but by thus confining the river, a strip of land from half to three quarters of a mile in width, the highest near the river and gradually subsiding into an impenetrable swamp, has been rescued from annual overflow, and now furnishes some of the richest cotton and sugar lands on the globe. The immense quantity of alluvion carried down by the Mississippi, may be estimated from the fact, that during its floods, the turbid water of the river is met from forty to sixty miles at sea, and furnishes the first indication of an approach to the coast. The immense forests that are floated down the Mississippi, and collected in the outlets of the river in masses of thirty or forty miles in length and twenty or thirty feet in thickness, constituting those 'rafts' which have cost the government so much money and labor to partially clear away, are destined to be the beds of coal for the inhabitants of the globe some uncounted centuries hence.

In New England the alluvial deposits are of but limited extent, and owing to the structure of the country through which the rivers flow, though very fertile, have not the inexhaustible richness which belongs to the alluvion of the west. The most important in that section of the union, are to be found on the Connecticut river, and are of considerable extent. The same remark will apply to that part of New-York lying east of the Allegany ranges, but as soon as this primitive region is passed at the Little Falls of the Mohawk, the peculiar characteristics of the western alluvion present themselves in the Herkimer Flats, and the upward valley of that river. But the richest alluvion of New-York is to be seen in the Genesee valley, and this indeed is rarely exceeded in fineness or fertility by the deposits of any western river.

Where the water of rivers that contain large quantities of sediment can be turned upon land, a double purpose is gained, that of ordinary irrigation, and that of manuring with the fertilizing deposit. Circumstances, however, will rarely admit the use of water in this way, as during the spring floods, when the deposit is the greatest, the flooding of land for irrigation would be most generally useless or improper. Near the mouths of rivers that are acted upon by tides, a method of covering lands with such alluvial deposit has been adopted with great success. The process is termed *warping*, and is thus described in an English publication:

"The water of the tides that come up the Trent, Ouse, Dun, and other rivers that empty themselves into the great estuary of the Humber, is muddy to an excess; insomuch that in summer, a cylindrical glass twelve or fifteen inches long filled with it, will presently deposit an inch, and sometimes more, of mud, or what is called warp. Where this warp comes from is a dispute; the Humber at the mouth is clear water; and no floods in the countries washed by the warp rivers bring it, but, on the contrary, do much mischief by spoiling the warp. In the driest seasons and longest drouths, it is best and most plentiful. The improvement is perfectly simple, and consists in nothing more than letting in the tide at high water to deposit the warp, and permitting it to run off again when the tide falls; this is the aim and effect: but to render it efficacious, the water must be at command, to keep it out and let it in at pleasure; so that there must not only be a cut or canal made to join the river, but a sluice or gate at the mouth to open and shut, as wanted; and that the water may be of a proper depth on the land to be warped, and also prevented from flowing over contiguous lands, whether cultivated or not, banks are raised around the fields to be warped, from three to seven feet high, according to circumstances."

In this way land can be raised in one summer from six to sixteen inches; and the new layer of soil will of course possess the greatest fertility; though it should lie in grass for one or two years before wheat crops are put upon it.

In all parts of our country, more or less small swamps or pond holes may be found, and these in general contain large quantities of alluvion, which may be made most serviceable when drawn upon lands requiring additions of vegetable mold to render them productive. Nothing is more true than the remark of the German agriculturist, Kohler, that every kind of soil may be made useful in promoting the fertility of another. Thus sand and gravel, worthless in themselves, if drawn on the surface of bog meadow that has been drained, and mixed with the alluvial mold, will ameliorate the soil and fit it for the reception of crops that could not otherwise be produced; while the mud and marl with which such spots abound, and are useless in their natural position, if spread over sand and gravel soils, are the very best applications that can be made. The swamps of our country, abounding as they do in vegetable deposit, will, when properly drained, not only be the richest of our soils, but furnish the means of rendering much land that would otherwise be of little value, fertile and productive.

Alluvion, rich and valuable as it is, is nothing but the wash of upland regions, and to which every farmer is generally compelled to contribute more or less of the general accumulation; and of course annually parts with so much of his most valuable and nutritive matter from his soil. To prevent this loss, should be the object of attention to every farmer. When his fields are liable to wash, he should endeavor to retain that wash on his own premises; or at any rate it should never be allowed to flow off into streams and be wasted. Usually, by proper management, water impregnated with alluvial matter, the wash of fields or roads, can be so conducted as to deposit it on meadows and fields where it will remain to enrich and render productive. The immense quantities of alluvial deposit, annually brought down by our rivers and small streams, is proof that our upland regions are rapidly parting with their most valuable and fertile principles; and that nothing but unceasing vigilance and continual manuring can repair and replace the nutritive matter so carried off.

Temperature of the Globe.

There is scarcely any question of natural philosophy of more general interest than the one connected with the temperature of the earth, its increase, diminution, or permanence. If, as some have supposed, the temperature of the earth is constantly diminishing, and crowding the most valuable plants, such as the sugar cane, palm, rice, and wheat, nearer and nearer to the equator, thus lessening the means of subsistence, and portending ultimate starvation and destruction to the human race; we cannot be made certain of such an event to soon, and those who now live on the verge of perpetual congelation should lose no time in making their way to more congenial climes, where during the existence of their children at least, the luxury of wheat bread may be enjoyed.

That any thing can be known with positive certainty in this matter, except as made so by the demonstrations of philosophy, cannot be expected; we possess no means of tracing the stream of time upwards to a period when the general aspect of the earth, its productions and its temperature, in all places of which we have any notices, were not the same as now. Geologists, in exploring the bowels of the earth and examining the structure and position of the several layers that form its accessible crust, imagine they have gone beyond the creation of man, and produced conclusive evidence that great changes in the temperature of the earth, and consequently in its animal and vegetable productions, had preceded that event. However well fortified their positions may be in this respect, it does not concern us at present; we only know that since the creation of man, no material or perceptible change has taken place in its formation or temperature.

To account for the present heat of the earth, two theories have been proposed; one of which in substance is, that the earth was originally a red hot mass, and has gradually cooled down to its present temperature and consistence; the other that its heat is all originally derived from the sun, and has not increased or diminished since the creation. That it was originally a heated mass, and that the interior of the earth is still of a high temperature, would seem probable from the fact that after the point is reached at which the annual and diurnal variation of the temperature of the earth near its surface ceases, there is a steady increase of heat averaging about a degree for every seventy-five feet, to the lowest depth which has yet been reached. If it was originally a heated mass, the surface must have reached that point of temperature at the creation of man, when the quantity of heat thrown off by radiation is exactly balanced by that received direct from the sun and planets, as there is the most conclusive evidence that not the least change in its density, motion, or temperature has taken place since that event

There are some things, however, that cannot be explained satisfactorily on either of these systems, and hence modern philosophers, particularly those of France, have been endeavoring to form one which shall fulfil all of the necessary conditions, without being liable to the objections that can be urged against the previous ones. One of the last of these ingenious speculations, for as yet they can be termed nothing more, is that of M. Poisson in his Treatise upon Heat; and whose epitome of his own elaborate work, has been ably translated for Silliman's Journal of Science by R. W. Haskins, Esq. of Buffalo, whose contributions to the cause of Science have made his name familiar to all interested in subjects of that nature. To show the nature of M. Poisson's theory we shall give two extracts from Mr. Haskins' translation.

"In discarding, then," says M. Poisson, "the opinion that the observed increase of the temperature of the earth, with the increase of its depth from its surface, is attributable to the original heat our globe may have had, I have proposed another explanation of this phenomenon, founded upon a cause the existence of which is certain, and which may certainly produce an effect similar to that which we observe. This cause is the inequality of heat in the regions of space traversed by the earth, in its movement therein with the sun and all the planetary system. The temperature of any given point of space, or that which would be indicated by a thermometer placed at that point, is produced by the radiant heat from the stars, which traverse space in all possible directions. These stars form around each point of space, an immense circumference, closed on every side; since, from such point, in every direction, whatever, if a right line be produced, of indefinite extent, it will terminate by encountering a star, either visible or invisible. Now whatever may be its form and dimensions, if this enclosure had, throughout, the same temperature, that of all space would be the same; but this is not the case; the heat as well as light of each star is maintained by some peculiar cause, and these incaudescent bodies tend not, therefore, to a uniformity of temperature, by the exchange of radiant heat. This admitted it follows that the temperature of space varies, one point with another; yet by reason of the immensity of the stellary enclosure, it is only by comparing the temperature of parts greatly distant from each other that this variation would become perceptible. In distances no greater than that traversed by the earth in its annual orbit, the temperature of space would be sensibly identical; but in regions so elongated as are parts of that through which the sun and the planets are carried in their common movement, this would not remain the same; and the earth, in common with all the other bodies would experience corresponding variations of temperature. Still from the magnitude of its mass, it may readily be seen, that in passing from a heated to a colder region, our globe would not lose on the second, all the heat it had imbibed in the first; but, like a body of considerable volume that we might transport from the equator to our climate, so the earth on arriving at a more frigid region would present as we see the earth really does, a temperature increasing from the surface towards the centre. The opposite would take place when the earth, by continuation of its movement in space, shall pass from a cold region, to one of a temperature less elevated."

This is the theory and now for the results:

"According to the example which I have chosen in my work, the temperature of space, in one million of years would pass from $-|-100°$ to $-100°$, and return again from $-100°$ to $-|-100°$; and if we should farther suppose that it is now at its *minimum*, an increase of the temperature of the earth in a vertical direction from the surface to the centre, very nearly equal to that we observe, would be the result. This increase will be sensibly uniform at all accessible depths; it will vary beyond, and at a depth of about 7000 metres, the temperature of the globe will attain its *maximum* and surpass by about 107° that of the surface: beyond this it will diminish, so that at about 60,000 metres from the surface, the influence of the inequalities of the temperature of space will have entirely disappeared. In the same example the temperature of the surface of the globe, 5,000 centuries since, would have surpassed that of the present day little less than 200°, and it will be the same again, when another 5,000 centuries shall have elapsed; a temperature that must have rendered and will again render the earth uninhabitable to the human species: but 500 centuries before, and 500 centuries after the period in which we live, the temperature of the surface would not exceed by more than about 5° that which we now witness."

Archimides said he would move the earth if he could have a place to stand upon; M. Poisson has we think done more than Archimides proposed, for he has determined the temperature of the earth for 500,000 years past, and 500,000 to come, without even the prop that Archimides so modestly desired. M. Poisson's whole theory is based on the assumption, that the sun, carrying the planetary system with it, is moving through space, a supposition, which, however probable from the revolution of the sun on its axis, has never received any thing like a confirmation, much less a demonstration from the investigations of philosophy.

On one point, however, the investigations or speculations of the French philosophers are in perfect accordance with the opinions of their predecessors, and that is, the unchangeable nature of the laws which govern creation, and the immense period of time that must elapse before the least sensible change in the temperature of the globe could be manifest. If Fourier and Poisson differ from Newton and Laplace as to the cause of the original heat of the globe, they do not differ from them as to the effects produced, or the stability of the existing action. All the records of Astronomy, the observation of Eclipses, the history of Plants, and the progress of Agriculture, from the very earliest ages to which human records extend, all go to prove that the first heat of the globe has not diminished in the least for that time, and that the present inhabitants have nothing to fear from any permanent decrease. If, as M. Poisson proves from his premises, the oscellations of temperature cannot vary more than 5° in 50,000 years, then, admitting that it is now at the minimum, the temperature of the globe has not changed but half a degree since the creation of man, a difference which will hardly account for the geological appearances brought to prove the existence, within a recent period, of a much higher temperature than now exists.

Finally, if the philosophy of M. Poisson be correct, we may console ourselves with quite a respite from the extremes of heat and cold to which our earth is or may be subject. Modern philosophers and vaticinators, have not always placed the proof of their theories or the fulfilment of their predictions at the safe distance of 500,000 years, and such may learn an important lesson from the essay of M. Poisson.

Wood Lands, Timber and Forest Trees.

"America has no antiquities;"—is the charge sometimes brought against us by ignorant or conceited foreigners, when other topics of detraction have been removed or disproved. We have, it is true, no monuments of oppression like the pyramids; of crime and shame like St. Peters; or of blood, cruelty, and murder, like the Tower of London; but we may with pleasure point the detractor of our country to our primeval forests, our magnificent and beautiful trees, and say with truth, 'These are our antiquities."

But while other nations and countries are assiduous in preventing the ravages of time on their monuments, and careful in guarding against the first approach of decay; we on the other hand, seem to consider ours as an incumbrance; and instead of endeavoring to save, are anxiously devising the ways and means of more complete destruction. No person of taste; certainly no one who has the future prosperity of the country at heart, can view the causeless destruction of our forest timber without regret. They see in the waste and the haste with which the destruction goes on, not only the deprivation of our country of one of its most beautiful and distinctive features, but a certain indication of the evil consequences that must ensue to the comfort, the prosperity, and the agriculture of our land.

The age of the monarchs of our forest can with difficulty be ascertained. Our elms, sycamores, and cypresses have grown up in their native wilds, on the banks of our noble rivers, or in our scarcely penetrable swamps, placing their origin in ages of darkness in which, in our land, no hand save that of nature was found to chronicle their planting or their progress. The immense sycamores of the Ohio and Mississippi valleys, like those of the Bosphorus, have been hollowed out by time, and that process has of course obliterated all marks that could determine their age. The elm is of rapid growth, and though it is, as seen standing in its native forests, the most majestic tree of our country, the age is rarely found to exceed four hundred years; and very few even of the largest, exceed three hundred years. The cypress is of slower growth and longer duration, and probably furnishes specimens of the most ancient trees to be found in this country. More than twenty years since we counted the concentric circles of a cypress, that had been cut down, and found seven hundred and forty-two annual layers that were distinct. A space of two or three inches at the heart was decayed, but counting this at the same rate as the others the tree could not have been less than eight hundred years old. It was a magnificent tree, hoary with age, and was felled to make a paltry thousand or two of shingles. Probably it would have been treated with as little veneration, had the fact been satisfactorily demonstrated to the woodsman, that the tree could claim an antiquity equal to that assigned by Adanson to the Baobab, or five thousand years.

But if we cannot correct the errors into which we have fallen in the treatment of our forests, we can endeavor to repair the injury, by taking all suitable measures, in planting and propagating the most valuable forest trees, to secure a supply for the emergencies of future years. Using timber for building as extensively as we now do, and must in general continue to do; inhabiting

a climate which requires the consumption of large quantities of fuel to render tolerable a large portion of the year, while by our geological location we are deprived of the grand resource of coal with which some other sections are favored; and multitudes of our farms being destitute of all materials for fencing except such as are produced by the forest; it would seem the necessity of planting and preserving timber must force itself upon those endowed with little or no forethought, or who are the most careless of the future.

The native trees of our forests can in general be propagated without difficulty. Such as are not reproductive, or which will not spring up from the stumps or the roots, can be grown from the seed. The maple, elmn, ash, and a number of others, will spring up self sown, wherever the ground is protected; the oak, chestnut, hickories, and walnuts, can be cultivated from the seed with almost the certainty of the apple or peach; or if swine are excluded from the forests of their native growth, these plants will spring up in such numbers as to require the thinning and regulating hand of man. The grand difficulty appears to be, we are too impatient; we cannot wait for the growth of a tree; we forget in our haste to be rich to day, that any body is to exist on the earth tomorrow; and when by clearing off our timber, and putting our farms into wheat we can make one hundred per cent every four years, why should we trouble ourselves about planting trees of which the benefit can only be realized by posterity? Such feelings are not those which should actuate the farmer and the patriot.

Some forty years ago, before any permanent settlements were made in our neighborhood, the timber was cut from an acre or two of land, on what is now the far mof a friend. It was not burned off, or but partially, and before any thing more was done, or the land occupied, a thrifty growth of young timber had sprung up which was allowed to remain; and the ash, maple, and basswood of that growth, are now beautiful trees of sixteen or eighteen inches in diameter, and sixty or seventy feet in height. A little part of a field on our farm, from which the timber was cut more than thirty years since, after being in cultivation several years, was enclosed and partly planted with an apple nursery, and this whole flat is now covered with young timber, some of it thirty feet in height and a foot in diameter. On this piece of ground, originally beech and maple land, there are now not less than a dozen different kinds of trees, the most of which, such as cherry, hickory, walnut, poplar, white and black oak, and willow, were entire strangers to the soil, and several of them had no representatives within a less distance than three fourths of a mile.

Such instances are conclusive as to the fact that nothing but a little care is necessary, to secure a continued growth of valuable timber on our lands. Where they spring up of themselves, as they will in all cases where the opportunity is given, all that is required is protection; where, by cultivation for years, the seeds that nature or accident had scatterd in the soil are exhausted or destroyed, these seeds must be supplied, and if properly managed regular nurseries of forest trees will be the result. The farmer who has a wood lot should consider it forbidden ground to cattle, horses, or sheep. Shut these out for a few years, and he will be surprised at the rapidity with which new growths of timber will succeed those cut down for fuel or for use on the farm; but if these animals have access, before the young growth is out of their reach, the young trees will be either wholly destroyed, or their leading shoots once bit off, the plants are rendered stubbed, and stunted in growth, and worthless as timber plants.

In forming nurseries of forests trees, such as are required for fences, timber, or fuel, great care must be taken to adapt the timber or the young trees to the soil in which they are to be planted. Nature is our best guide in this respect; and though some soils will grow a great variety of trees, and after clearing new lands there will frequently be a great, if not a total change in the new growth compared with the old, still there is a fitness of soil required for the cultivation of the leading varieties. The maple, elm, and basswood, flourish in one kind of soil; the oak, chestnut, whitewood, and sycamore in another; and the hemlock, pine, fir, &c. in another. These varieties of trees are generally found growing on the same kinds of soil, distinct from that occupied by other kinds; and where they are found blended together, as they sometimes are, it is usually where the different kinds of soil mingle, and form one adapted to the growth of all. To attempt the growth of the pine on lands where the elm and maple flourish would be almost a hopeless task, and vice versa. The oak, chestnut, and pine are more frequently found together than the others, though it sometimes happens that on very rich lands, all we have named are found on a small space. Some trees, such as the oak or beach have roots that penetrate the earth to a great depth, and of course require a deep soil to reach perfection; others, as the elm, maple, and some kinds of pine, spread out their roots horizontally, and will flourish in a soil of but little depth. All trees, however, like cultivated plants, require plenty of food to a rapid growth, and whatever else may be the peculiarities of the soil vegetable nutriment must abound, or the trees will be dwarfed and worthless.

We consider this subject of such importance to the farmer, that we may return to it again, for the purpose of giving some directions from authentic sources and experience as to the best method of preparing ground for nurseries of forest trees; an analysis of the soils best adapted to different varieties; and the best methods of planting the seeds to produce germination and proper growth.

CULTIVATION OF FRUIT.---No. 6.

The Quince.

The quince is commonly propagated by layers, but it may be raised from seeds, and also by cuttings if the soil is light and deep, and the cuttings are buried not less than ten inches or a foot deep, leaving but a small portion above ground. The following is the best method of raising them hy layers.

"When the young shoots are laid down, there should not be more than two eyes left above ground, and when those have grown five or six inches long, one of them should be cut clean off, leaving the other to form the plant, which by the autumn will be three feet high. The layers must be taken of the stools as soon as the leaves are fallen, and planted out in rows at three feet apart from row to row, and ten or twelve inches from plant to plant in the row. At the end of one or two years they will be fit to bud or graft with the different sorts of pear, for quenouille or espalier training; or they may be allowed to grow up and form standards for orchard planting.

"Those however which are intended for budding or grafting, should be shortened to eighteen inches, as soon as quartered out in the rows, which will keep them upright, firm, and steady: but those intended for standards, should be staked and tied up as soon as planted, and at the end of three years they ought to be fit to be planted out where they are intended to remain." (*Lindley's Guide.*)

The advantages of employing the quince as stocks for pears, have been already pointed out in the number of this series on the culture of the pear. It may be proper however here to remark, that it is only the summer and autumn *melting* pears that are benefitted in quality by grafting on the quince; little or no advantage is derived from a similar treatment of breaking or baking pears.

The *soil* for the quince should be *rich and moist*—the distance asunder need not be more than eight or ten feet.

The most valuable *varieties* of the quince are the *Apple* or *Orange* quince, the *Pear* or *Oblong* quince, and the *Portugal* quince.

The Orange Quince has ovate leaves, downy beneath, and a large roundish fruit with a short thick neck, of a beautiful rich yellow color, and ripening late in autumn. It is the variety most commonly cultivated in Western New-York, and sometimes is so large as to weigh a pound or more.

The Pear Quince has oblong-ovate leaves, and a smoother and more lengthened fruit of a regular pear shape. It is quite distinct from the preceding.

The Portugal Quince, though the chief variety cultivated in England, is not much known in this country.

According to Loudon, it has "broad cordate leaves, and an oblong fruit, which is more juicy and less harsh than the others, and therefore the most valuable. *It is rather a shy bearer*, but is highly esteemed for marmalade, as the pulp has the property of assuming a fine purple tint in the course of being prepared." He adds, that this is the best sort for working the pear tree upon, its wood swelling more in conformity with that of the latter, than the harder wood of the other sorts.

The Japan and Chinese quinces are cultivated merely as ornamental shrubs.

The chief enemy in the cultivation of the Quince, is the *Borer*. This is the larva of an insect, which attacks the tree near the surface of the ground, and works inwards, and generally *upwards*, but sometimes *downwards*, to a distance of several inches during summer, and perforating the wood. Instead of throwing out their excreted matter, like the peach worm, they *pack* it behind them, as is common with borers through *wood*.

The insect which produces this larva does not appear to be certainly known. There is however strong reason for believing it a species of Cerambyx. The writer of this article received a year or two since an insect taken by L. W. Lawrence of Hudson from a quince tree which had been killed by the borer. It was one of several, found in a chrysalis state in the trunk of the tree, and from which the perfect insect sent was obtained. This insect was found on examination to belong to the genus Cerambyx of Linnæus and Latreille. The following is a description. Antennæ with ten joints, tapering gradually towards the point, head white, except a light brown spot upon the crown, one of the same color behind each eye, and two very small diverging oblong spots upon the front; eyes very dark brown; labrum brown at the base, yellowish white on the upper surface at the extremity; thorax yellowish brown above with two broad longitudinal white lines, white beneath; elytra yellowish brown above, with two longitudinal white lines along the middle of each, and which are a continuation of the white lines on the thorax; all the lower part of the body hoary white. According to the author of the article Cerambyx in Rees' Cyclopedia, the larva "resemble soft, oblong, slender worms, with a shelly head, furnished with strong jaws, and six feet on the anterior part. *They live principally in trees, the inner part of which they bore through, reducing the wood to powder*, and undergo their changes from the larva to the pupa, and thence to the perfect state, in the cavities which they bore."

As the borer very frequently destroys the tree, various means have been suggested and tried to prevent the injury. Incasing the lower part of the trunk in a box of coal dust, pulverized blacksmith's cinders, tar, or unleached ashes, has been tried with various degrees of success. But the best method appears to be direct attack. The soil should be scraped away from the trunk to a depth of two or three inches, and then cut in with a knife lengthwise, and not *across* the bark where it is possible to avoid it, until the insects are found and extracted. The operation should be repeated once a week for several times, as there are generally a number in each tree, and some are almost certain to escape the first examination. After the operation, the wounded parts should be coated with a suitable composition, as a mixture of tar with ochre or brickdust, or thick paint. As they are constantly penetrating deeper, it is a great saving of labor to arrest their progress early, when they can be removed with facility; hence trees should be examined frequently. But when they have been neglected, and the tree becomes much perforated, to attempt to *cut* them out would destroy it; hence the expedient of drawing them out of the hole by means of a *flexible barbed wire*, has been successfully resorted to. It has also been suggested, when the hole is very crooked, too inject strong soap-suds, or a decoction of tobacco, in order to destroy them. But it may be questioned whether this is sufficient for the purpose, as larva generally are very te-

nacious of life, some even continuing to live when immersed in nitric acid or a solution of corrosive sublimate.

Perhaps the best means of effectually preventing the depredations of the borer, would be to graft the quince upon pear stocks, as the latter is very rarely known to be attacked by this insect. J. J. T.

The Geological Reports.

The limits of the 3d and 4th Geological Districts have been materially altered since the first Reports were made; and the dividing line between them, may now be designated with sufficient exactness for our purpose, as running nearly north and south from Pennsylvania through the Cayuga Lake to Lake Ontario. The 4th District includes all parts of the State lying west of that line; and *James Hall*, formerly an assistant, has been appointed the Geologist.

The rocks of this District, he remarks, "consist principally of series of limestones, shales, and standstones, each passing into the other by insensible gradations in some points, while in others the line of separation is distinctly marked. Each formation or stratum, is *limited on the north by its outcrop*, and on the south by the superposition of the next successive deposit, *under which the former disappears.* The extension of these formations *in an east and west direction*, is beyond the limits of this District." He adds, that their dip is to the *south* or *south-east.*

We are told in the Report that "the calcareous shales of the middle portion lose their calcareous matter on going southward, and become the dark shales of the coal measures;" but we have been in doubt respecting the exact meaning of the writer. We suppose that those shales, dipping under the incumbent strata, continue into Pennsylvania, and though invisible, retain their calcareous character; but these would be geologically, several thousand feet below the dark shales of the coal measures.

Of the following paragraph, we recommend the part which we have italicised to the particular attention of our farmers, and entirely unite with that opinion:

"That portion of the District occupied by the limestones and calcareous shales, including nearly the whole of the two northern ranges of counties, is one of unrivaled fertility. No other portion of the state of equal extent, possesses the same agricultural advantages. The soil is underlaid by calcareous rocks, constantly affording a supply of a most essential ingredient, the value and importance of which, if rightly appreciated, *would even now, by judicious application, greatly increase its productiveness.*"

It appears from the Report that there is *no prospect of finding valuable coal mines* in the District; and on this point all our Geologists agree. The escape of inflammable gas, and the odor of bitumen, are no evidences of the presence of coal. It is remarkable, however, that the causes which produced the bituminous character of the coal of Western Pennsylvania, were in operation at the time the lower rocks were deposited in Western New-York. It also appears that the same rocks which are bituminous in the 4th District, are not so in the eastern part of the State; neither is the coal which lies under the same meridians to the south; and the geologist feels confident that further examinations will prove *the identity of the bituminous and anthracite coals.*

As one among the numerous proofs of the most extraordinary changes to which our globe has been subject in different periods of time, we notice the traces of a gentle current over sandstone near Lockport, at the time the strata were deposited. The stone is quarried for flags, dividing into layers from half an inch to four inches thick; and on the surface of these, Lingula are discovered with their mouths all arranged in the same direction; "doubtless," says the Report, "in the direction from which the current came, for the purpose of obtaining food." A little ridge of sand extends from the beak, and gradually slopes down to the regular surface of the rock, like a deposit of sand caused by an obstacle in a current; and on each side of the mouth or widest part of the shell, there is a depression corresponding precisely with what we observe where a current of water meets an obstacle. "It is impossible to avoid the conclusion," continues the Report, "that the surface of each of these layers was once the original surface of the sandy bottom of an ocean, covered with living shells, over which a gentle current flowed."

The Geologist has not been able to find the *argillaceous iron ore* mentioned in our last number, west of the Genesee River.

"*Dog* tooth spar" instead of *hog* tooth spar, at page 302, we suppose is owing to a misprint.

The hillocks or small mounds of earth which in some places indicate beds of gypsum, are supposed in the Report to have been caused by *some elevating force.* "It is said by the inhabitants that [these] are not observed till after the country has been cleared of its forests, or in places where there has never been trees growing. These changes in the contour of the surface are observable from one year to another. In some places a mass of gypsum has formed under a building, altering the level of its foundation and disturbing its equilibrium. Points on the surface which are now but slight elevations, will in a few years become more elevated. However unaccountable these circumstances may appear, I have no reason to discredit the assertions of numerous respectable authorities."

Some years ago, we endeavored to examine this subject as thoroughly as our slender means would allow, and we arrived at the conclusion that the hollows or low places between the mounds were caused by the solution of the gypsum; and that every irregularity resulted from *a sinking down of the surface.* In examining the quarries on the east side of the Cayuga Lake, where only we had observed this peculiar undulation, we found that it was confined to such beds as were imperfectly sheltered by a loose subsoil. Beneath limestone or hard-pan which prevented the transudation of moisture, the gypsum was invariably found unaltered and unwasted.

On removing the covering of earth or gravel from these beds, the plaster rock had often the form of *jambs* or *pillars* without any mark of disturbance, *the strata retaining a horizontal position.* At these quarries we feel confident that no perceptible change has taken place in the shape of the ground since the first settlement of the country, except by artificial means. The undulations were there before the trees were removed, and we have never understood that either houses or fences have been disturbed.

Between these jambs or pillars we found *a black earth*, which appeared to be an *insoluble* substance, and the coloring matter of the plaster rock. Its quantity bore some proportion to the depth of the depression; and to us the inference seemed conclusive that the gypsum had been wasted by solution.

If the limestone mentioned in the Report, was in such condition as to admit through it the water of thaws or of long continued rains, its fractured appearance may be owing to its having settled as the gypsum dissolved.

It appears from the Report that a strange prejudice prevails with regard to crystalized or "*Isinglass Plaster*"; and in some places even to the fibrous gypsum. Using the words* of the Geologist, "it is considered as an *impurity, injurious as a manure*, and consequently those masses which contain it are excluded and thrown aside. This opinion is entirely erroneous: these varieties being a *purer* article than the opake, granular, or compact gypsum." We are glad of an opportunity to assist in correcting so gross an error.

Of the Ridge Road, (a part of which is on the stage route between Rochester and Lewiston,) the Geologist says, "The elevation of Lake Ontario to this level furnishes the only plausible means by which we can explain its present appearances; and however reluctant we may be to admit such a condition, we are forced to do so from the abundant evidence furnished."

We also feel reluctant to admit that condition, if by these expressions we are to understand that the surface level of Lake Ontario once *stood* as high as this ridge. The chain of evidence furnished is incomplete. Before we could adopt that opinion, we should require it to be shown by thorough investigation that such a ridge *surrounds* the Lake—as plain and as evident on its north and eastern borders, as on its southern slope. It is said however, that no such ridge occurs on the Canadian side; but be this as it may, there are other difficulties hard to explain. After having traversed this Ridge throughout much of its extent, we think it accords but very imperfectly with a natural beach of the Lake. Wherever waves beat for a long period against inclined planes of compact earth, the banks become precipitous; and the traces of any such result along this ridge, are very slight. It would also be difficult on the theory proposed, to account for its abrupt termination, and total disappearance for nearly four miles opposite to Lockport, and for a less extent in other places.

Another view of this subject may be taken. If this ridge was once the natural beach of the Lake, and not the result of a preternatural action in some convulsion of Nature, it ought to be nearly level. Some years ago, in traveling from Port Glasgow towards Little Sodus, a gentleman of that vicinity who was in company, pointed out to us, several miles east of the former place, what we believed at the time to be traces of the Ridge Road. We may indeed have been mistaken; but if not, we should infer that it had approached the *level* as well as the *border** of Lake Ontario. We think this subject is worthy of further examination.

According to the theory proposed, if the height of the Ridge Road at Lewiston be 160 feet above the Niagara, and the surface of the Seneca River at Montezuma be 140 feet, "the ancient lake" must have deeply covered all the Cayuga Marshes; and traces of an ancient beach might be expected on the shores of the Cayuga Lake, more than twenty feet above its present level. We know of nothing of the kind. The long low ridge *lying nearly north and south* on which the village of Montezuma stands, and another of similar character extending from the Seneca Outlet towards Bridgeport,—are indeed, nearly on the same level as the Ridge Road at Lewiston, but these appear to be results of diluvial action.

If the statement be correct, which at present we have no reason to doubt, that a ridge also extends along the southern border of Lake Erie for more than one hundred miles, similar in its character to our Ridge Road,—then we ought to look to some higher cause than the ordinary action of waves against the shore. We would also respectfully suggest for the consideration of our Geologists, whether the small hills near Lake Ontario, are such as might be formed *at the bottom of a lake?* and whether the smooth surface of the country immediately below the Ridge, has not the appearance of having been *swept by mountainous surges?* T.

* With such liberties as we have taken in our notices of the other Reports.

* At the village of Sodus, it is but *three miles* from the Lake." Geol. Rep.

EARLY FRUIT.

A large number of the cultivators of fruit sustain a material loss by not directing their attention more particularly to the *earliest varieties.* They often allow one month to pass, unsupplied, when they might be furnished with abundance. The earliest garden vegetables frequently sell in market for ten times the common price, and early fruit possesses equal comparative value. They are not worth less for the cultivator's own use.

Notwithstanding the lateness of the season, strawberries and Raspberries, of select varieties, would now furnish a supply of delicious fruit; the earliest of the former have already been ripe many days; and when a very few weeks have elapsed, the earlier varieties of apples, pears, peaches, plums, and most varieties of apricots, will be fully ripe. To assist in procuring these, it may be stated, that the Yellow Harvest, Summer Pearmain, Juneating, and Bough apples; the White Primordion plum; the Primitive or Little Musk, and Madeleine pear; and nearly all varieties of the apricot, ripen before or during wheat harvest; while the

Early White Nutmeg peach immediately follows; and the Early Ann peach produces excellent ripe fruit, at least one month before the common varieties of the red rareripe, which are so commonly considered as standing first on the list for early maturity. J. J. T.

An Example worthy of Imitation.

For several years past the vine in some districts of France has been greatly injured by a species of insect, a variety of *Pyralis*, and the attention of scientific men in that country has been called to the subject of devising some means of prevention or extirpation. To aid the expense of the experiments, the Minister of Commerce and Agriculture, has granted a sum of 1000f. as is stated in a late French Journal.

This public spirited liberality may be contrasted with that of the New-York Legislature. The wheat worm, an insect more formidable than the Pyralis, as attacking a plant of more importance to man, has been ravaging parts of the state for several years, and gradually extending itself to the other sections, destroying the hopes of the husbandmen as it advances, and when the cultivators of the soil asked for a trifling appropriation to awaken the inquiries, and reward the success of men of science, in providing a remedy for the evil, they were coldly repulsed, their petitions unheeded, and they left to combat the formidable enemy in the best manner they are able. We think that in this, as well as in some other matters, the legislators of our free country, might derive some useful lessons, from what we are pleased to consider the oppressive governments of the old world.

THE GRASSES.

Of all the plants with which a beneficent Creator has seen fit to clothe the surface of the earth, there is not a single family to which man is so much indebted for comfort and subsistence as to that of the grasses. We of course speak of this plant in its extended or botanical sense, embracing the varieties which science, not common nomenclature, places in this class. There is not a part of the world of any considerable extent, where the grasses do not abound naturally, and in some of their species or varieties affording directly or indirectly most of his nutriment, their cultivation follows him in his migrations, and into fixed society. 'The cultivation of the earth preceded the improvement of the intellect, and has always been the herald and precursor of civilization.' The Mogul and Caucasian races of men, find in the grasses, the wheat and barley on which they subsist; to the same family, the Negro and Malay races look for their rice and millet; and on this continent, the cultivation of maize, another variety of the same wide spread, food giving family, bounded the tribes of Mexico, and furnished at the time of the discovery of America, the principal food of our other Indian nations. While these cereal grasses are found cultivated in all parts of the world, it is somewhat remarkable, that they are no where found in a wild state, or in positions that do not indicate the fostering care of man.

Though the sugar cane is the only variety of the grasses exclusively cultivated for the manufacture of sugar, there are many others that contain it in large quantities (as the stalk of maize) and the great nutritive power of the grasses is in all probability mainly owing to the saccharine matter they contain. Chemical analysis combined with experience has shown that the value of grasses is in proportion to the sugar, gum, or mucilage they contain, the two last substances being only modifications of the first, and capable of an easy conversion into that substance. While grain, the seeds of some species of the grasses, are the principal support of man, the grasses themselves give subsistence to the animals he deems necessary to his nutriment.

To perceive the immense effect that the grasses have on the condition of mankind, and their indispensable nature, we give from Professor Johnson's Lectures on Botany, a few instances of the extent to which they are made subservient to our comfort and conveience.

"It has been estimated that the *daily* consumption of grain in England and Ireland is one million 238 thousand, and 96 bushels of wheat and barley; besides *annually*, 100,000 bags of rice, and 450 million pounds of sugar. Besides these may be estimated as the immediate product of the grasses, which consumed by animals forms the the food of man, a quantity of almost inconceivable amount. In London alone is annually consumed 155 millions pounds of butcher's meat. Of cheese another production of the grasses, 11,500 tons are annually introduced into London from Cheshire alone, about 20,000 tons from Warwickshire, besides that from several other counties. Of butter the annual consumption is almost 50 millions lbs. the produce of 300,000 cows; and in London between 9 and 10,000 cows are kept for the supply of milk to the inhabitants, which produce an annual supply of about 30,000 millions of quarts. All these are the immediate product of the grasses."

That the inhabitants of London consume greater quantities of these kinds of food, than those who live on the same, in tbe country, will not be pretended; and hence, the above estimate forms a point from which may be calculated the immense product of the grasses in the whole of Great Britain, or in the United States, used for the sustenance of man. Utility and beauty are combined in the family of the grasses, to an extent seen in scarcely any other part of nature, and from the sugar and rice of the south, through the gradations of maize, wheat, barley, and oats, to the wild rice of our most northern lakes, presents, in a continued chain, articles of the greatest value to the human race.

Culture of Wheat in the Tropics.

It is well known that the cultivation of wheat within the tropics has been deemed impracticable, unless at an elevation of from five to nine thousand feet; and that as a consequence the inhabitants of the West India Islands, and the adjacent main, are mostly dependant on the United States for their supply of wheat flour, while the great mass live on corn, '*Zea mayz*.' From some late experiments, however, it would seem that by selecting a proper variety of wheat, and a proper season for sowing, the difficulties attending the production of wheat on those islands is not insurmountable, and several cases have occurred within the last two years in which wheat sown at but a few feet above the level of the sea, has perfected a beautiful grain.

The wheat in these instances was sown in January, and was cut in April, having grown and ripened in the short space of ninety days. In the Journal of the Bahama Society for the Diffusion of Knowledge, is the following paragraph, giving notice of an example of productiveness which can be rarely paralleled in the history of the wheat plant.

"On the 12th of March Mr. Lees stated, that he had been informed by Mr. Storr, that each grain of the Victoria wheat which he had planted would be likely to produce 100 ears; counting only the very moderate number of 50 grains to each ear, this would be an increase of 5000 per cent, or five thousand bushels for one! Mr. Storr intends, in the coming season, planting a quantity of this wheat, from which no doubt abundance of seed will be obtained."

Increase of Sheep.

Few of the domesticated animals increase their numbers faster than the sheep, and hence arises no small part of the profit in keeping them. With proper care, a farmer can scarely fail of raising as many lambs as he has ewes, and as at six months, they will be worth at least a dollar a head, the sale of the lambs alone would be a handsome income on the capital invested. But by a little care in selecting animals to breed from, the numbers produced from a given number of ewes may be greatly increased, without much disadvantage either to the size or the value of the lambs. We copy from the Farmer's Magazine for May the following notices of extraordinary fecundity.

'The farmers on all sides of us describe the present as one of the best seasons for lambing. Three lambs to a ewe is quite a common occurrence. Mr. William Scholey of Ashley has a flock of twenty-five ewes of half Scotch breed; five of them have dropped three lambs each; fourteen of them have dropped two each; and the remainder one each making forty-nine in the whole.'

'Mr. Player of Kenwyn near Truro has had this season from 13 ewes (his whole stock) 11 doubles, one treble, and one single, or 26 lambs from the whole. A ewe belonging o Mr. Honey of Hicksmill, has brought four lambs this teason, which are now three weeks old and likely to do well. The same ewe had four lambs last season, and three the season before, making *eleven* in two years, nine of which are now alive, and in the possession of Mr. Honey.'

The Right Course.

Extract of a letter from Unionville, U. C., dated 8th of June:

"The Hoof-Ail is prevailing pretty extensively among our cattle in this country. The different modes of cure recommended in the Farmer, have, in most cases, failed. Our winter wheat is very much killed out by spring frosts; but what we are losing by hoof-ail and frost, we are endeavoring to make up by gaining all the knowledge we can by our own and other people's experience. This spring's experience has shown us that fall wheat on ground well manured, stands the frost with little or no risk of being injured."

DIED,

At London, in May last, Thomas Andrew Knight, Esq. President of the London Horticultural Society, aged about 60 years. Mr. Knight was well known among horticulturists in this country.

Ploughing Exhibition and Sale of Cattle.

The Trustees of the American Institute, at New-York, have determined upon a trial of ploughs, on the Elysian fields in Hoboken, opposite the city of New-York. The ploughing will commence on Tuesday, the first of August next, at 2 o'clock P. M. Suitable teams will be provided, not, however, preventing any gentleman from bringing their own teams, if prefered. The object will be to test the merits of various ploughs and ascertain the best kind adapted to ordinary ploughing. "Strength of construction, durability, liability to get out of order, adaptation of parts so as to admit of repairs readily, their capability easily to accomplish various kinds of work, breadth and depth of furrow, &c., will be subjects of consideration. Competent judges will be appointed, consisting of practical farmers, with one or more skilful mechanics, to aid in deciding on the mechanical work of the specimens.

"Ploughs may be exhibited, and entered for competition, by persons from any part of the Union.

"A medal will be awarded, by the Trustees of the Institute, for the plough which the judges shall pronounce the most perfect: and for the second best a diploma."

Exhibitions of this kind are a means of doing a vast deal of good; they not only bring together from different parts of the country, the best ploughs now in use, but they call forth the talents of the ingenious to make improvements if possible; and thus afford the best advantages for determining the comparative merits of such as seem to have a claim to excellence. And such are now the advantages for disseminating valuable information, and the facilties for obtaining any article that is favorably brought before the public, that any farmer [here we would just whisper into the ear of the reader that he should take the Yankee Farmer, as it will give the information, and is connected with a large Agricultural Warehouse where may be had the best implements in the country] may obtain the most approved implements at a little more cost than the unhandy, bungling implements that often require twice the labor to operate them.—*Yankee Farmer.*

Salt your Hay.

A small quantity of salt put on hay when it is put into the barn will add to its value. When coarse fodder, such as fine bushes and the like, is salted, cattle will eat it up clean, when without salt they would be likely to leave a part, and even the whole, if they are well fed with good hay. If hay be not completely dried when put into the mow, salt will help preserve it, preventing its heating as it otherwise would. It is much better for cattle to have salt moderately with hay, than to take it in doses in cold weather, for when taken in winter in quantities as is usually given in summer, it opens the pores and is likely to cause colds. No more salt should be put on hay than cattle need while they are consuming it; a peck to a ton of hay is generally considered a proper quantity. We have known some farmers to put their hay, or rather grass, into their barns rather green, and then put on half a bushel to a bushel of salt to the ton, with a view of saving the hay and making it weigh much, but experience has induced them to abandon the practice, and use a moderate quantity.—*Yankee Farmer.*

Do not attempt to feed a great number of worms until you have some knowledge of their habits, derived from experience, otherwise you may not meet with complete success. A few well attended to the first season will do you most good.—*American Silk-Grower.*

COMMUNICATIONS.

SHEARING OF SHEEP.

Mr. Editor—For myself, I thank you, as well as your correspondent 'M' of Onondaga, for your courteous and commendatory remarks in reference to the essays I have contributed to the Genesee Farmer, on the subject of "Protection of Sheep," &c. &c. I was fearful, sir, that yourself partook of the general listlessness, which at present unfortunately prevails relative to the great interest of wool growing; and accordingly, I had resolved to defer any further efforts to promote sheep husbandry until a more propitious time. I am happy that I am mistaken;—your remarks caused no ordinary gratification, for the reason, that I may, at least, infer, my sentiments, based as they are entirely upon facts, have been well received by your numerous readers, and will operate beneficially. I arrogate to myself no claim to any new discoveries, but have merely followed the lights which others have set up;—my object is, only, to bear testimony to the correct bearings of those lights, which, I can assure my agricultural brethren, will invariably lead to the harbor of *true interest*.

I will now make some remarks on the subject of *shearing of sheep*, and other matters connected therewith; and, as you have invited from your correspondents plans and descriptions of "farm buildings," I will, in my next, present you with that of my shearing establishment and the necessary appendages.

In reference to shearers—myself, and doubtless very many others, have remarked, how *rare* is a *good shearer*. This, considering the aptness and skill of our countrymen in the mechanic arts, and, I may say, in all the diversified divisions of labor, has struck me as somewhat singular. I shall not attempt to account for it, but to obviate the *scarcity* of shearers,—it has been my practice for many years to learn some of my monthly laborers this important art. The first point was to learn them *how* to catch a sheep, and bring it upon the floor, which, I am free to say, not one in five hundred understands. I shall not attempt to describe the common and inhuman method, which might, however, be well compared to a dog dragging a wood chuck from his burrow,—my way is, to throw the right arm around the body of the animal, and grasp with the hand the brisket, then lift it, and with the left take every thing from the feet, particularly straw, which, otherwise, finds its way upon the floor and thence into the fleece. This is one of the *sorts* of *hair*, which, too often, is found in the *butter*. [Vide the anecdote of the traveler.]

The next step is to learn him how to hold and turn his sheep in progress of shearing it, to prevent the fleece from being torn, which, being so, makes it more difficult to do up right. I would not recommend you to allow your pupil to shear beyond ten or fifteen the first or second day; let him take it easy, otherwise he will complain of shearing being a back-breaking business; and if he contracts a dislike to it, you may give up all hopes of his ever arriving at skillfulness. By adopting a judicious course, you will fetch him under the yoke. For instance—last year one of my monthly hands, who was altogether unacquainted with the art of shearing, began and sheared fifteen the first day, and exciting his ambition by encouraging words, before the conclusion of shearing he accomplished double that number; and this season the same hand sheared forty per day and performed his work admirably. This is only one of several instances which was followed with like success.

Now it is the practice of the great majority of wool growers to employ only those who understand the art already; if we *all* did so, when decrepitude and death had thinned their ranks, where would you look for shearers. One of my neighbors told me, "that he could not learn any of his laborers to catch a sheep, much less to shear it." "Don't be so particular," said I, "all beginners are bunglers, and become expert and skillful only by practice; instead of fretting and scolding, speak kindly and encouragingly—say to him, the second was sheared a little better than the first, and the third better than the second and so forth. It appears to me, Mr. Editor, if the policy I have adopted and recommend could become general, we should remedy the evil, in very many instances, of allowing sheep to run too long after washing, which arises from not being able to obtain the "right sort of shearers" in seasonable time.

Too many farmers are apt to appreciate a shearer in proportion to the number of fleeces he takes off in a day, not being particular *how* it is done. This is a wrong standard to estimate a good shearer. The most skillful man at this business, is he who will shear about forty per day—cuts the wool at one clip of the shears, and not in twain, as one shearing too fast will do—leaves the least wool—shears most even, and cuts the skin the least: one that will do all this is a good shearer. On the contrary, if a man attempts to shear much beyond the above number, he will be certain to leave more wool on the sheep than will suffice to pay his wages, and, as my honest neighbor, Ben. Rogers, says, "in the course of the day will take off hide enough for a good sized leather apron in the bargain."

There is an inhuman practice of shearers, which every wool grower should discountenance and correct, which, if it was not so common, I would not allude to,—and that is, of cuffing and kicking sheep to make them lay still when shearing;—how foolish, how ridiculous;—those who are acquainted with *my ways* know better than to exercise *thus* their brutal spite.

The next point suggested to my mind, although disconnected with the subject before us, is the rejecting of all "pecoolirarities"—as honest Ben terms *burs*, *clippings*, *ding balls*, &c. &c.—from the fleece, before rolling it.—If I had not already exposed sufficiently before this, the abominable practice of many farmers of enclosing all that sort o' thing in the fleece with a view of increasing its weight, and thereby cheating the manufacturer, here would be the proper place to discharge a broadside. For years past I have, with the assistance of a small lad, rolled the fleeces of all the sheep sheared on the farm on which I reside, consisting of ten hundred or more, and therefore, by personal attention, and having the *desire* and *will* to do the *clean thing*, I have succeeded in obtaining five cents per pound more for my wool than I should otherwise have got, provided its condition was ordinary. If a sheep is filthy it is *taken to the door and tagged*, and *not* done upon the floor;—here is the key which unlocks the door, and we are able to see, and know, *why* so much of trash is found intermingled with the fleece. It is usually done upon the *spot* where the shearer is, and when he has finished, the fleece with all the "beautiful superfluities" attached, is taken up and rolled together;—sometimes they are rejected, that is to say, if the owner has any pretensions to honesty, otherwise the manufacturer must be visited with the consequences of his abominable dishonesty. To prevent clippings from attaching to the fleece, I do not permit my shearers to trim the legs, &c. until the fleece has been removed from the floor,—after this is done, and the sheep duly marked and let go, the longest *trim.locks* are picked up and put by themselves; all else is carefully swept from the floor before another sheep is introduced. In spite, however, of the greatest vigilance, some trash will be rolled with the fleece; but to show your readers how little does escape my observation, on referring to my Invoices of 1835 and '36, adding the clips of those years together, the amount is 7340 lbs., from which was deducted 33 lbs. of "strings and dirt;" 24 lbs. of which was twine; leaving only 9 lbs. for clippings, &c. All this is duly recorded on the sorter's books of the Middlesex Company. I am thus particular, Mr. Editor, for I dislike preaching without corresponding practice.

A word here in regard to securing fleeces. Mr. Lawrence, in his letter recently published in the Genesee Farmer, recommends the example of his friends, H. D. Grove and Daniel Rogers, which is, to bind the fleece by twisting a band from the tail or flanks. I fear, not until all our flocks have been brought to the exquisite fineness of those gentlemen, will the course he recommends be adopted, for the reason, that wool growers in general do not like to expose the coarsest part of the fleece. For myself, I am indifferent, provided I could secure it as quick and as well that way as with twine;—as it is, I should be under the necessity of taking lessons from his friends.

At the time of shearing, there are many matters requiring particular attention, viz; sawing of horns which are likely to grow into the head or eyes of the animal,—cutting off the hoofs, which, with fine wooled sheep not uncommonly, grow to an uncouth length,—marking them; not the ears; this should be done when the lambs are weaned; but with an iron formed to represent the letter O, or a diamond, with a handle attached, and with black paint, marking the ewes upon the left shoulder, the wethers upon the right, and bucks on the rump. This is in much better taste than a huge daub of Spanish brown, or some ill formed letter covering the whole broadside of the sheep.

Those having small flocks, shearing is also a fit time to separate the aged and infirm, the poor, or others which require particular care. For these purposes, I have chosen other seasons, all which will duly appear hereafter. But shearing is the time, above all others the most important, to observe whether your sheep are affected with scab;—if you have the least suspicion that only one is affected, seperate it at once, for the disease is contagious, and apply the proper remedy, which is a decoction of tobacco water with a small portion of corrosive sublimate intermixed. I have not had a sheep affected with scab in eight years, because they are surrounded by the never-failing preventive, viz: *good keeping* and *protection during winter*.

Another important matter is usually attended to at the time of shearing, viz: docking and castration of lambs. For the last two years I have chosen an earlier period; but with those who have small flocks, it is as well to adopt the usual time. If the weather is warm, it will be necessary to use a little lard, warmed to a liquid, with the addition of spirits turpentine, and annoint the parts, otherwise there is danger of maggots. By choosing an earlier time, when the weather is usually cooler, the use of anything is superseded, and the loss rare. This season, I am aware of the loss of only one out of nearly 500, and this arose from carelessness of docking.

But allied with shearing, is tagging of sheep, although performed, or should be, in April, and before they are turned to grass. My space will not allow me to expose the slovenly, nay scandalous, manner in which this is usually done. It is common for many farmers to cut off only the most filthy locks; all else goes with the fleece. The remarks of your correspondent, alluded to at the beginning of this essay, are apposite, and I will here quote them. "No farmer need suppose that if he trims his fleeces closely, the wool so taken off is lost. If his flock is of good quality, the skirts will make better flannels than can be purchased at the shops; and if not wanted for this use, they can be converted into carpets, &c. and the better price he will obtain for that sold, will in most cases amply compensate for the part taken off and reserved for such uses." Now I will prove the truth of all this. By reference to my books, I find the quantity of *tag wool* taken off from my flock year before last—which then amounted to 1600—was 420 lbs.; it was manufactured into satinet, and here is the result:

From 420 lbs. received 343 yards, which was sold for 97 cents,	$332,71
Deduct 37½ cents per yard for expense of manufacture,	128,62
Nett,	$204,09

This, it will be perceived, is equivalent to 48½ cents per lb. for the wool. Last year I did not do so well, although I sold not a yard of satinet below 80 cents. From my flock this year I took off 520 lbs., which is now being manufactured. I make this expose to confirm the truth of your correspondent's statement, as quoted above; I hope it will result as well for others.

Time presses, Mr. Editor, and I must hasten to a close. One word more—when tagging, aside from cutting much

from the flanks and tail, be particular to shear all the wool growing about the teats of the ewes, and also, for it is much neglected, the wool immediately around the "water works" of your bucks and weathers; otherwise, the wool being constantly saturated with urine, will cause inflammation, ulceration, and finally death. I have lost sheep from this cause.

It is my purpose, sir, although leisure is a rare thing with farmers at this period of the year, to furnish your readers, when time affords the opportunity, an outline of the general course of management of my flock of sheep.

Lansing, Tompkins Co. L. A. M.

Loss of Plums.

Mr. Tucker—"*Blight*" is a word apparently of very uncertain signification. It was only the other day, that an intelligent young lady visited a friend's garden, and on her return announced to me with genuine *naivette*, that his plums had, by *blight*, been transformed into *puff balls*. The nature of the miracle, as well as the novelty of the application of the word, (for I had never supposed that *blight* was capable of producing such effects,) rendered me of course desirous of witnessing the phenomenon. My curiosity was soon gratified. Happening to call on my friend, John Scott, Esq. of this township, his lady expressed her regret that she would this season be deprived by "*the blight*" of all her plums, of which she was wont to make a preserve far exceeding in flavor and appearance any thing of the kind which I have met with for a long time. I immediately requested permission to examine the trees, and Mr. S. kindly conducted me over his gardens and orchard.

Mr. S. has two gardens attached to his residence; one on the flats of the Etobicoke, and the other adjoining the house, on the top of the bank, thirty or forty feet above the bed of the stream. In the former, the "*blight*" has prevailed for some seasons, but this is the first year of its appearance in the upper garden. The trees were entirely the ungrafted or wild plum of the country. The perfect fruit had attained the size of a pea, but the infected had assumed the dimensions and figure of a tolerably sized heart-shaped pepper pod.

On examining the infected fruit, I perceived that the *epidermis* had been distended into the shape and dimensions which I have now described, and the stone or shell of the fruit had been converted into a substance of a spongy texture, while the kernel or proper seed remained unchanged. What is the cause of this affection, and how can its recurrence be prevented?

Instead of "*blight*," I entertain no doubt whatever but this transformation originates with the puncture of an insect, made for the purpose of depositing its eggs. It strongly reminds me of the puff apples which are so common on the twigs of dwarf oaks in the sandy plains of the London district. Having often examined these "puff apples" in their various stages, I found them to contain at one time a grub, then a chrysalis, and at last a fly, somewhat of the shape and size of the common house fly, but much darker in color. My acquaintance with Entomology, however, was not, I blush to acknowledge, sufficient to enable me to determine its generic and specific characteristics. It is true, that I have not hitherto been able to trace any indication of the existence of an insect in the plum; but neither did I detect any such in the oak puff, until the animal assumed the condition of a grub. From this, it may reasonably be inferred that the egg is too minute an object to be easily detected, and as it is presumed that the insect in the plum is still in embryo, it has thus hitherto escaped observation.

A practical knowledge of the particular insect which thus attacks the plum,* and of its peculiar transformations and habits, will of course be necessary to enable us to determine the proper steps to be taken, if not for its extirpation, at least for checking its ravages, but reasoning *a priori*, I should be inclined to infer, (1st.) That it is an insect, (whether fly, moth or beetle, I shall not pretend to predicate,) of annual existence only. (2nd.) That the embryo is deposited in the plum by the parent insect in the shape of an egg, immediately after the setting of the blossom. (3d.) That it remains in this depository until it becomes a grub. (4th.) That as the plum does not, like the oak twig, afford a persistent depository, but falls from the parent tree in a very short time, the grub, it may be suspected, will soon quit the fruit, and burying itself in the soil, will there pass the winter in the state of a chrysalis. (Lastly) In spring it will again emerge from the ground a perfect insect, and after disporting in the sunbeams for a few short hours, will in its turn deposite its egg in a plum, and die, leaving its offspring to follow out the same routine.

If such be the nature of this infection, one means of checking its recurrence must be obvious to all. Let every infected fruit be plucked the moment it is perceived. Do not heedlessly throw it away,—for this would be as bad as leaving it on the tree untouched, and would only tend to perpetuate the evil; but let it be carefully removed to a fire, where it must be effectually destroyed. Lest any should have dropped unperceived, let the surface of the soil surrounding the affected tree be then removed to the depth of an inch or two, and in like manner let it be either subjected to a similar combustion, or to a degree of fermentation sufficient to destroy animal vitality. By this means an effectual check may certainly be given to the evil; but a more particular knowledge of the insect and its habits may guide us to an easier mode of extirpation. Any information on this subject will therefore be highly acceptible to several of your readers, and in particular to,

Your humble serv't, W. Colvill.

Chinguacousy, U. C. (Hurontario st.)
June 21st, 1838.

* It does not affect Cherries although in juxta-position.

Inquiries.

Mr. Tucker—If you, or any of the correspondents of the Monthly Genesee Farmer, can tell us how to keep the black grub out of our corn, we shall be very thankful. Our corn in this section of the country has been very much injured by this destroyer. One farmer says he has taken nearly a quart from one piece of corn. So plenty are they, that as many as four have been taken from one hill. An Enquirer.

Belleville, N. J. July, 1838.

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Mr. Tucker—Can you, or any of your correspondents, inform me of a preventive to the ravages of a small green worm that preys upon the leaves of the gooseberry and currant? In this section they make their appearance about the first of July, and in a very short time the bushes are entirely divested of their leaves; the fruit soon withers and falls off, and the tree, most usually, in the course of the season perishes. If it survives the following one, its growth is stinted, the fruit small, and it directly dies beneath a second attack. It is a very great nuisance; and if any of your correspondents are acquainted with an efficient method of arresting their ravages, they would be conferring a favor by making it public through the columns of your valuable paper. Yours, P.

Waterville, Oneida Co., July, 1838.

Silk Ribbon in great perfection is manufactured by Messrs. S. & T. Whitmarsh, at their Factory near South Street Bridge. The loom used was constructed by Mr. F. Downing, of Enfield, and a more perfect and beautiful piece of machinery we have rarely seen. It is capable of weaving fourteen pieces of Ribbon of different widths at the same time, and it does weave them exquisitely. Some specimens which we have in our possession, the product of this machine, are not surpassed by any Ribbon of foreign manufacture. This branch of business, as well as the manufacture of Sewing Silk, promises to be a very lucrative business to the enterprising Proprietors in Northampton.—*Northampton Courier.*

The publishers of this paper, in connection with Jedediah Strong, Esq. are now feeding more than half a million Silk Worms on the plantation of Mr. Repka, two miles above Dyott's Glass Works, on the Point road, near Philadelphia. Mr. Strong is a gentleman whose experience in the management of the Silk Worm is great; and the Raw Silk produced under his direction, has never been surpassed in this country.—*American Silk-Grower.*

From the New England Farmer.

Farming by the Shakers at Canterbury.

I have great pleasure in presenting the subjoined statement to the agricultural community. It came to hand some time since, but its publication has been delayed in the expectation of receiving the Reports refered to from the other families. Like every thing else which comes from this worthy people, the report is well drawn up; and will be read with much interest. It is impossible I believe to find more striking examples of neat, careful, exact, and skilful husbandry than are to be found in these industrious and temperate communities wherever they are planted in any part of our land. H. C.

Report of the farm of the United Society called Shakers in Canterbury. First Family.

No. of acres.	Live Stock.
Tillage 25 to 30,	Horses 10,
Eng. Mowed 100,	Oxen 10,
Wet Meadow 40,	Cows 40,
Pasture 500,	Sheep 300,
Orcharding 30,	Swine 40,
Wood, waste, &c 500,	Young neat stock 10,
Soil, Loamy; Dry; Hilly,	

Shaker Village, Merrimack Co. N. H.
Oct. 30th, 1837.

Henry Colman—*Esteemed friend*—I have annexed a sketch below in answer to your inquiries with as much exactness as practicable, as I had to obtain it from those who had the experience of *actual experiment*, as we have never kept any record of any such thing, hence the difficulty of obtaining the desired information. If any thing that I have written on the subject will be of use or interest to you, you are heartily welcome to the same; and were it not for the pressure of business and the limited time, I should have been glad to have given you a more lengthy and minute report.

With much respect, your friend,
WILLIAM WILLARD.
for and in behalf of the first family at
Canterbury, N. H.

Amount of Hay usually cut is from 140 to 250 tons per year, in this (first) family exclusive of the other two families, who have made out (or will) their memoranda, separate as you will perceive, viz: in year 1835, 140 tons—1836, 226 tons—1837, 133½ tons.

We have one field of 12 acres, another of 10 acres, and part of another which has not been ploughed for upwards 30 years. In one of said fields we cut 32 tons to 12 acres the first mowing, or 2 8-12 tons to the acre besides the second crop. We apply top dressing once in a few years and roll the same in by means of a roll filled with iron pikes, sharp, 4 or 6 inches long drawn by oxen or horses.

Wheat.—Our soil not being well adapted to wheat we can say but little about it, as we raise but little; generally not more than from 35 to 50 bushels per year, the most that we ever raised per acre was 40 bushels which is an extra crop for us.

Corn.—We raise but little, from 50 to 70 bushels per acre. On a neighboring farm 12 miles distant was raised a few years since 112 bushels 5 qts. to the acre—was planted in hills, not dunged in the hills but spread on the surface and ploughed in, which we think the best way.

Oats.—Sow annually from 10 to 12 acres, yield on 3 acres in year 1836, 80 bushels per acre—average yield of 10 acres 60 bushels per acre, with exceeding heavy straw, the land was of good quality and prepared in the usual way.

Potatoes.—We usually raise from 2000 to 2500 bushels annually. The largest crop we have raised was in year 1833 which was 400 bushels per acre, (common potato) the land had no extra preparation.

Turneps.—Raise from 4 to 600 bushels annually, of the common English and Ruta Baga. In 1836 raised from 7 to 800 bushels of English, have raised from 4 to 600 bushels of Ruta Baga per acre, consider them good for sheep, cows, and beef cattle.

Flax.—Raise but little of this article of late years. In 1822 raised the greatest quantity which was 900 lbs. Flax from 5 pecks sowing on 1¼ acres of ground prepared in the usual way.

Carrots.—We annually raise more or less of these, some years 1000 bushels; one year raised 800 bushels per acre.

Peas.—In year 1836 sowed on one piece 3 pecks, yield 16 bushels.

Beef.—The largest beef we have raised weighed 1400 lbs. fattened on Carrots, Potatoes, with but a small quantity of Meal.

Pork.—There are a diversity of opinions in regard to the best and most expeditious manner of fattening Hogs. We have tried perhaps as many different plans as we have had different hands to fatten them. Some will say all corn, some part corn with pototoes, &c. We for 2 or 3 years have adopted the plan of gathering our apples into the Hog house instead of the cider mill, and feed them upon boiled apples, potatoes, and pumpkins, with the ad-

dition of a small quantity of meal, to be increased as the killing times draw nigh, and under this management we have never known our hogs to thrive better or faster. Another method we have tried (when fed with corn.) Take a tight barrel fill it half full of corn. Pour boiling hot water until the corn be covered, let it stand a few hours and the barrel will be full of corn and very little if any water to be discovered; this answers when at a distance from mill and is better than dry corn without grinding; but we think it will not fat so well as made into proper meal. We had 20 hogs fatted on meal, began 1st day of August, one of them killed last of October, weight 400 lbs., the other 19, killed 23d December, average weight of the 19, 480 lbs., the meal mixed part of the time with skimmed milk, mixed as dry as possible; gave them at first 1 quart of meal per day each, from that to 3 quarts per day each, and a time before they were killed they refused 3 quarts per day; have frequently had hogs weigh 600 fattened on potatoes and meal. Had one small shoat very small size taken away from the rest and fed on one pint of corn per day, with meadow hay, milk, and wash, from September to December, weighed when killed 500 lbs., this pig when separated from the rest was the smallest in the lot. We are decidedly in favor of apples for hogs and cows. We take them promiscuously as they grow, without regard to their being sweet and sour.

Wool.—Average number of lbs. of wool for Merino bucks, from 7 to 9 lbs.; have sheared 10 lbs.; average number of lambs per year from 150 to 190 Merino.

Breed of Cattle.—The Durham Short Horn for Cows and Stall, for labor we have not had sufficient experience of them.

The profitable article for cultivation are the Potato and Carrot for fatting Hogs and Beef, and for milch cows.

Lime as a Manure —We have used lime as a manure to good advantage; it restores and replenishes the soil that is apparently worn out. We air slack it and spread it and plough it in. Gypsum we have made no satisfactory trial of.

We suggest the idea to all that can obtain it, the use of *saw-dust* as a litter for hogs, horses, cows, oxen, &c. We have tried it for years; litter all our horses with it, like it much better than straw. We in the spring haul the saw-dust from the mill and deposit it in a convenient place to be got at, at night throw ½ bushel or more under each horse taking care to scrape out all that is wet beforehand and in the morning it mixes in with the manure, goes into the heap, absorbs the wet and forms a compost, and in a similar way for hogs, oxen, cows, &c.

Another effectual experiment I have tried, which is before putting a quantity of oats into a close bin (as we do frequently 7 or 800 bushels) to throw or sprinkle fine salt among them; this prevents them from heating, also makes them relish better, and finally keeps them entirely free from must.

Horse Rakes we use—when constructed on the right principle are a great labor saving machine; we usually rake at the rate of 4 acres per hour. The same may be said of threshing mills. We have one of our own construction, a description of which would exceed the limits of this sheet. We usually thresh from 100 to 150 bushels per day, and at the same operation it is winnowed and cleaned already for putting up.

The report of the second family, I have as yet been unable to procure.

Amount of Butter for 10 yoars past, 2436 lbs. per year.
" Cheese " " 3265 " "

From the Yankee Farmer.

Clover and Tillage.

Dear Sir—I am induced to send you the following article on clover and tillage, selected from an old agricultural publication, because I believe the rules therein laid down are right. I have practiced upon them for 10 years, and therefore can speak from experience. I would earnestly recommend every farmer to follow the same plan.

"Never cut your clover the first season, nor feed it to close, both are injury to it; but the second season cut your clover when in full bloom, when not more than one fourth of the heads begin to turn brown, which will generally be in the month of June. The cutting and curing of clover is very nice and critical farming, and demands the first attention. The heads and leaves of clover are its principal value, the stalk when coarse, of is little use; therefore, in order to preserve the most valuable parts, cut your clover in dry weather; and when the dew is dried off from the first swaths, turn them over gently, without spreading, until you come to the swaths, which are ree from dew, let those lie untouched until noon, unless showers, or a storm become threatening; in this case, break off your mowers, and get your clover from the swath into small cocks. Let the cocks be made with the fork, with only once or twice rolling; but if the weather continues fair, let your mowers keep on and your haymakers follow with their forks, and put all the swaths into small cocks. The next day let these cocks stand, and go on cutting as before; proceed thus until you have secured your clover. In two, three, or four days as the weather may be, the clover first cut will be fit to cart, if the weather proves fair, if not, the rains will never penetrate farther than the winds and sun will dry; the clover will be injured only upon the surface. Should a long cloudy, or moist turn of weather succeed, you may give your clover air, by taking off the top of each cock and placing it for the bottom, and thus with your fork change the order of your cocks by bringing the bottoms to the top, this mode will cause your cocks to shed rain better than the common mode of turning them over at once with the fork. When you find your clover sufficiently cured for housing, taking the first good hay-day, turn over your cocks in the morning when the dew is off, and as soon as the moisture is dried from the bottoms, clear your field as fast as possible; thus you will secure all the valuable parts of your clover; viz. the heads and leaves, in full blossom, and as perfect a green as when growing; and your horses will hold their flesh and do more service on this clover, without grain, than on clover cured in the common method with the usual quantity of grain, and you will readily experience the saving in expense, which, although of importance, will be found to be of minor consideration in this mode of husbandry."*

* If you sow your clover thin, with only 2 or 3 quarts of seed to the acre, (as is the practice of some,) it will be of an inferior quality; the stalk will grow large and rank, and require more attention in curing; therefore never sow less than 5 or 6 quarts to the acre. Whenever your clover has sweat and cured in the cock, so that you can select the largest stalks, and twist them like a string, without their emitting any moisture upon the surface, when twisted, you may then house your clover; it is in its most perfect state. If you sow timothy, or herds grass with your clover, you may manage in this way, for the first year, with safty—the second year it will become about one-half timothy, or herds-grass, and must be spred and turned gently, to preserve as much as possible the heads and leaves of your clover: the third year, your clover will disappear, and the herds-grass must be spread and cured in the common mode; I say the common mode, for I presume that every farmer spreads his hay into 3 swath winrows; (unless it be heavy English grass, of 2 or 3 tons to the acre, which will occupy all the surface of the field on which it grew, to cure it;) this saves the expense and trouble of one raking, and that he spreads in the forenoon all the swaths cut before 12 o'clock, (leaving the swaths cut after 12 o'clock, to continue in the swath until the dew is off the next morning,) and that he gets into cocks before 5 or 6 o'clock in the afternoon, all the hay spread upon his field. The fermentation which hay undergoes by standing in the cock over night, not only sweetens the hay, but prepares it for a more rapid evaporation of its juices the next day, and will doubly pay the expense of cocking, besides the security it affords against bad weather.

American Silk Handkerchiefs.

Feeling as we do a sincere interest in the success of the Silk Culture in America, we copy the subjoined article with feelings of pride and pleasure, as it demonstrates, not only the practicability of profitably manufacturing the raw material; but the existence of that generous spirit of enterprise which will ultimately lead our citizens into the adoption of the culture of silk as an important branch of husbandry. We have for several years made it the subject of our study, and after the maturest consideration which we have been able to give to it, we have no hesitation in declairing, that it is susceptible of being made the most profitable of all human employments.—*Far. & Gar.*

Silk.—The West Chester Silk Company had a sale of handkerchiefs, manufactured from their own silk, on Tuesday last. There were 35 in number—and the aggregate proceeds were $71.05. They were knocked off in quick time at from $1.75 to $3 00 a piece, to the supporters of domestic industry. Pretty well for Chester county—there is none of the odor of Monarchy about these articles. A man with an American handkerchief in his pocket, steps prouder and quicker. There is a magic in some things at least that are American.—*West Chester (Pa) Village Record.*

New Arrival of Turnep Seeds.

We have just received from England a large additional supply of Turnep Seeds, among which are the following kinds:

Ruta Baga, or Yellow Sweedish,
Dale's Yellow Hybrid,
Yellow Bullock, Yellow Scotch,
Yellow Aberdeen, Red Round,
White Globe or Flat,
White Norfolk, Long Tankard,
Early White Flat Dutch,
White Stone, Yellow Stone,
Yellow Malta, Yellow Dutch.

☞ See descriptive list on page 198, current vol. Genesee Farmer. REYNOLDS & BATEHAM.
Rochester Seed Store, June 23, 1838.

Farm for Sale.

The subscriber offers for sale a Farm, lying near the Seneca turnpike, two miles west of Manlius village, and three and a half miles from the Erie canal, containing 250 acres of excellent land; rising 220 acres in high cultivation; the soil rich and suitable for every agricultural purpose. There are on the premises, besides the dwelling house, three small convenient houses for the use of hired men who have families. On the Farm are four large Barns, with Sheds and Stables sufficient for 2000 sheep, besides other stock. The orchards are extensive; the fruit select and excellent.

If desired, the farm could be conveniently divided to suit purchasers.

Also, A Farm containing 120 acres of land, about 100 acres in cultivation, lying in the town of Lafayette, 12 miles from the Canal at Syracuse, and about 12 miles from the farm above described. On this farm is a convenient Dwelling House, two large and excellent Barns, with sheds and stables for sheep and stock, a good Saw Mill, surrounded by a lot of valuable timber.

Terms of sale will be favorable. Letters (postage paid) will be attended to. DAVID ELY.
Manlius, Onondaga Co., N. Y., July 2, 1838.

☞ The subscriber will offer at private sale, in September next, 500 Saxon Sheep, of the finest fleece, bred from imported stock. [jy 7-4t] D. ELY.

Seed Buckwheat,

A GOOD clean article for sale low by
June 23. REYNOLDS & BATEHAM.

Red Clover Seed.

A FEW bushels just received, for sale by
June 23. REYNOLDS & BATEHAM.

Root Cultivation.

A LARGE supply of new and genuine Ruta Baga, Mangel Wurtzel, Sugar Beet and Orange Carrot Seed, just received at the Rochester Seed Store.
REYNOLDS & BATEHAM.
Rochester, April 21, 1838

Drill-Barrows or Planting Machines.

A NEW supply of Robbins' Patent Planting Machines, just received at the Rochester Seed Store.
Also, a number of Merchants' Patent Drill Barrows. [See No. 18, current vol. of the Genesee Farmer.]
May 5. REYNOLDS & BATEHAM.

Farmers' Books.

Notices on the Sugar Beet containing a description of the culture and preservation o the plant; also explanations of the process of extracting its Sugar. Price 25 cts.
A Manual of the art of making and refining sugar from Beets. Price 75 cents.
Cobb's Manual on the Culture of Silk.
Chaptal's Agricultural Chemistry.
The Complete Farmer, by Fessenden.
Fessenden's American Gardener.
A Guide to Orchardists.
Smith's Treatise on the Honey Bee.
A Treatise on Cattle.
Mason's Farriery.
Barnum's American Farriery.
Vols. 1st and 4 h, Genesee Farmer, bound.
For sale by D HOYT,
Rochester, May 26. 1838. Bookseller, 6 State st.

Fruit Trees for Sale.

The subscriber respectully informs his friends and the public, that he has for sale at his Nursery in Rochester, Monroe county, state of New-York, a large quantity of Fruit Trees, grafted and inoculated with the most approved kinds, now fit for transplanting, which he will sell on the most reasonable terms. SAMUEL MOULSON.
April 15, 1838.
N. B. Cash will be paid for a few thousand two years old Apple Trees.

Monroe Horticultural Garden & Nurseries, Greece, Monroe County, N. Y.

This establishment now comprises over 20 acres, covered compactly with Trees and Plants in the different stages of their growth.

The subscriber offers to the public a choice selection of Fruit Trees, of French, German, English and American varieties, consisting of Apples, Pears, Plums, Peaches, Cherries, Apricots, Nectarines, Quinces, Currants, Gooseberries, Raspberries, Grape Vines, Strawberries, Ornamental Trees, Shrubs, Plants, Hardy Roses, Vines, Creepers, Herbaceous Perennial Plants, Bulbous Roots, Splendid Pæonies, Double Dahlias, &c. &c.

Also, a large collection of Green-House Plants, of choice and select varieties, in good condition.

Orders respectfully solicited. Trees and Plants, when ordered, are carefully selected and faithfully packed, and if desired, delivered on the Canal, one mile from the Nursery, or at Rochester.

Orders for Mr. Rowe's Nursery received by the publisher of this paper.

Catalogues will be sent to every applicant, gratis, or may be had by calling at the office of the Genesee Farmer.
April 1, 1838. ASA ROWE.